

U. S. F. C.  
Records.

Nos. 858-901.

1880.

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION RECORDS

Numbers 858 to 901

Copy.

P.

U. S. Fish Commission.  
Dredging Record.  
1880.

Locs. 858 to  
Sept. 1 to

All bearings in this  
book are magnetic

Air temperatures taken  
by a Gal. Green Thermometer  
supplied by the Navy  
Department, and corrected  
to within .5° of adeg. It was  
placed in the open  
pilot-house

# Chester Rake Dredge.

## TEMPERATURE RECORD.

Instrument used,

Negrile Gambar.

Current number of observation,

858.

Date, Sept. 1, 1880.

Locality, Narragansett Bay

Bearings, Beaver Tail Pt., N.N.W.  
1/4 W., 1/3 mile.

Time of day, 1.05 P.M.; of tide, flood.

State of sky, clear.

Temperature of air, 69.

" surface of water, 63. (N.Z. 42666)

" at depth of 10 fathoms, 66.5 (N.Z. 40007).

" of bottom, 66. (N.Z. 40007).

Depth, in fathoms, 14.

Nature of bottom, Shelly.

Direction of surface current, S. E.

Force of surface current, 2.

Direction of bottom current, E.

Force of bottom current, 1/4 mile.

Name of vessel, Fresh Hawk.

To what service attached, U. S. F. C.

Name and rank of commanding officer, J. A. Tanner.

Lient., U. S. N.

Name and position of observer, F. C. Van Vleet.

M.D.

858

REMARKS.

Coarse sand, broken shells.  
*Cancer borealis.*

Chester Rake dredge  
TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 859.

Date, Sept. 3, 1880.

Locality, Vineyard Ad.

Bearings, Cullighunk light, N. 1/2 W.,  
3 miles.

Time of day, 11.20 am; of tide,

State of sky, Clear.

Temperature of air, 68°

" surface of water, 66. (N. 3. 46400.)

" at depth of 5 fathoms, 65. (N. 3. 40000)

" of bottom, 63. "

Depth, in fathoms, 17 1/2

Nature of bottom, sand.

Direction of surface current, S. W.

Force of surface current, 2.

Direction of bottom current, W.

Force of bottom current, 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

859.

REMARKS.

Net caught over rake  
Nothing in bag; but on rake  
*Ninoe nigripes*  
*Phascolosoma*?  
and in piece of lobst.  
pot brought up. large  
spec's of *Teredo*

Chesapeake Bay  
TEMPERATURE RECORD.

Instrument used, *Regrettii Zambra*

Current number of observation, 860.

Date, Sept. 3, 1880.

Locality, Vineyard Sound.

Bearings, Pullyhunk Lt., N. 1/2 W.  
3 miles.

Time of day, 11.55 a.m.; of tide,

State of sky, clear;

Temperature of air, 70.

" surface of water, 66. (*n.z. 46400*)

" at depth of 5 fathoms, 65° (*n.z. 40007*)

" of bottom, 64. "

Depth, in fathoms, 17 1/2

Nature of bottom, mud.

Direction of surface current, S. W.

Force of surface current, 2,

Direction of bottom current, W.

Force of bottom current, 1/4 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

860

REMARKS.

Bay nearly full <sup>very</sup> fine sand.  
slight admixture of mud.  
very rich in annelids and  
amphipods, and Mollusks

*Merluccius bilinearis.*

*Frank*  
TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 861.

Date, Sept. 3<sup>d</sup>. 1880

Locality, Vineyard Is.

Bearings, Cuttyhunk Is., N.  $\frac{3}{4}$  W.,  
 $3\frac{3}{4}$  miles.

Time of day, 12, 20 P.M.; of tide,

State of sky, clear.

Temperature of air, 69.

n.z.  
4000 f " surface of water, 66. (n.z. 46400,  
at depth of 5 fathoms, 65. (10 f. - 65°  
" of bottom, 61. (n.z. 4000 f.

Depth, in fathoms, 17.

Nature of bottom, sand.

Direction of ~~surface current~~, S. W.

Force of ~~surface current~~, 2.  
drift: 3.

Direction of ~~bottom current~~, 3.

dist. " 1/4 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

861.

REMARKS.

*Suberites compacta*?  
*Soligo Realii*.  
*Hormans americanus*,  
*Asterias vulgaris*.  
*Pecten tenuicostatus*  
*Eupagurus bernhardus*.  
*Platynereis oscillatus*,  
*Cancer borealis*  
" *irroratus*  
*Pinnotheres maculatus* in *Pecten*

*Frank*  
TEMPERATURE RECORD.

Instrument used,

*Regretté-Zambla*

Current number of observation, 88622

Date, Sept. 3<sup>o</sup> 1880.

Locality, Vineyard Sound.

Bearings, Cuttyhunk Light.

North, 4 miles.

Time of day, 12.55 P.M.; of tide,

State of sky, Clear.

Temperature of air, 68.

" surface of water, 66 (n.z. 46400)

" at depth of 5 fathoms, 65. (n.z. 4000 f.)

" of bottom, 64 "

Depth, in fathoms, 17.

Nature of bottom, Sand.

Direction of surface current, S. W.

Force of surface current, 2.

Direction of bottom current, S.

Force of bottom current, 1/4 m.

Name of vessel.

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

862

REMARKS.

*Platynocheilus oscillatus*.  
*Euphaeinae* Reinhardt.  
*Cancer borealis*.  
*Hormans americanus*.  
*Loligo pealeii*, few.  
*Cebrella sanguinolenta*,  
only a few of each of above.  
*Asterias vulgaris*, 12.  
*Suberites compacta*?

Rake Dredge  
TEMPERATURE RECORD.

Instrument used, Regatta-Zambla.

Current number of observation, 863.

Date, Sept. 3, 1880.

Locality, Vineyard Is.

Bearings, Culeyunkit Lt., N. 48 E.  
 $3\frac{3}{4}$  miles.

Time of day, 1.40 P.M.; of tide, flood.

State of sky, Clear.

Temperature of air, 70.

$\text{N} \beta, 4000\text{ f.}$  surface of water, 67. ( $\text{N} \beta, 42600$ ).  
" at depth of 10 fathoms, 65° ( $5^{\circ}, 65^{\circ}$ )  
" of bottom, 65 ( $\text{N} \beta, 4000\text{ f.}$ )

Depth, in fathoms, 18.

Nature of bottom, sand.

Direction of surface current, S. W.

Force of surface current, 2.

Direction of bottom current, S.

Force of bottom current,  $\frac{1}{4}$  mile.

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

863  
REMARKS.

Same as 860, very rich  
*Goldia limatula*, very large,

Dredge

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 864.

Date, Sept. 3, 1880.

Locality, Vineyard Sd.

Bearings, Gay Head L., S. S. W.  $\frac{7}{8}$  N.  
5  $\frac{1}{2}$  miles.

Time of day, 3 P.M.; of tide, flood.

State of sky, clear.

Temperature of air, 70.

" surface of water, 67. (n<sub>3</sub>.46400)

" at depth of 5 fathoms, 66. (n<sub>3</sub>.40007)

" of bottom, 65. "

Depth, in fathoms, 13.

Nature of bottom, sand.

Direction of surface current, S. W.

Force of surface current, 2.

Direction of bottom current, S. E.

Force of bottom current, 1/4 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

864.

REMARKS.

Sand and broken shells

*Theal*  
TEMPERATURE RECORD.

Instrument used, Negretti-Zambra.

Current number of observation, 865.

Date, Sept. 4, 1880,

Locality, Atlantic.

Bearings, Lat.  $40^{\circ} 05' N$ ,  
Long.  $70^{\circ} 23' W$ .

Time of day, 5.40 a.m.; of tide,

State of sky, Clear.

Temperature of air, 71.

" surface of water, 73. (N.B. +6400)

" at depth of 5 fathoms, 75. (N.B. +6401.)

" of bottom, 68.5 (N.B. +6401.)

Depth, in fathoms, 65.

Name of bottom, Compact fine sandstone.

Direction of ~~surface current~~ wind, var.

Force of ~~surface current~~,

1.

Direction of ~~bottom current~~, drift.

E. N. E.

Force of ~~bottom current~~,

7/4 mile

Name of vessel.

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

do I lead, and repeat the same  
fig. 1000, or first east by passing  
Nicholson sp. south of abd.  
*Asterias vulgaris*, one

Persisted from spec.

A heavy swell, the  
ship rolling violently at  
times.

The Negretti-Zambra thermom-  
eters are not reliable for  
bottom and intermediate  
temperatures, frequently being  
capsized by rolling of the  
ship

J. A. Tanner.

*French*  
TEMPERATURE RECORD.

Instrument used, *Reggeli Zambra*  
Current number of observation, *866*.

Date, *Sept. 4. 1880.*

Locality, *Atlantic*

Bearings, *Lat.  $40^{\circ} 05' 18''$  N.,  
long.  $70^{\circ} 22' 18''$  W.*

Time of day, *6.30 a.m.*; of tide,

State of sky, *Clear.*

Temperature of air, *73.*

" surface of water, *73.* *n. 3.46400*

" at depth of *5* fathoms, *74.5.* (*n. 3.46401*)

" of bottom, *68.5 (?)* "

Depth, in fathoms, *65.*

Nature of bottom, *fine sand & mud.*

Direction of surface current, *Var.*

Force of surface current, *1. - 0.*

Direction of bottom current, *N. E. by E.*

Force of bottom current, *1/2 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, *Dr. F.C. Van Vleck.*

## REMARKS.

# Rake dredge

## TEMPERATURE RECORD.

Instrument used. Negretti-Zambra

Current number of observation. 867.

Date. Sept. 4, 1880.

Locality, Atlantic

Bearings, Lat.  $40^{\circ} 05' 42''$  N.

Long.  $70^{\circ} 22' 06''$  W.

Time of day, 7.04<sup>a.m.</sup>; of tide,

State of sky, Clear.

Temperature of air. 75.

" surface of water, 73. (n.3  $\frac{46400}{46401}$ )

" at depth of 5 fathoms, 75° (n.3.  $\frac{46400}{46401}$ )

" of bottom, 53° (n.3.  $\frac{46400}{46401}$ )

Depth, in fathoms, 64.

Nature of bottom, sand and mud.

wind

Direction of ~~surface~~ current, Calm.

Force of surface current,

strong

E. S. E.

Direction of bottom current,

weak

2/4 miles.

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

J. D. Tanner

867.

**REMARKS.**

Compact hard  
Sand and broken shells

*Trawl*  
TEMPERATURE RECORD.

Instrument used, *Regretté Zambla*.

Current number of observation, 868.

Date, Sept. 4, 1880.

Locality, *Aélanie*

Bearings, Lat.  $40^{\circ} 01' 42''$  N.

Long.  $70^{\circ} 22' 30''$  W.

Time of day, 8.23 a.m.; of tide,

State of sky, Clear.

Temperature of air, 75.

" surface of water, 75° (N.B. 46400.)

" at depth of 5 fathoms, 75. (N.B. 46401.)

" of bottom, 47. "

Depth, in fathoms, 162.

Nature of bottom, fine sand & black specks.

Direction of ~~wind~~, calm.

Force of surface current.

Direction of drift, N.W.

Force of drift,  $\frac{3}{4}$  mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, J. D. Tanner.

868

REMARKS.

From 162 into Deepwater  
River from bottom.  
but Deepwater? From inter-  
mediate

# Trawl

## TEMPERATURE RECORD.

Instrument used, Regrettii-Zambla.

Current number of observation, 8691.

Date, Sept. 4, 1880.

Locality, Atlantic.

Bearings, Lat.  $40^{\circ} 02' 18''$  N.

Long.  $70^{\circ} 23' 06$ . W.

Time of day, 9.27 A.M.; of tide,

State of sky, Clear.

Temperature of air, 80.

" surface of water, 76. (n. 3. 46400.

" at depth of 5 fathoms, 75° (n. 3. 46401.

" of bottom, 50 (?) "

Depth, in fathoms, 192.

Nature of bottom, fine sand.

Direction of ~~surface current~~, calm

Force of surface current,

Direction of ~~bottom current~~, N. N. E.  
dist. drift -  
Force of bottom current,  $\frac{3}{4}$  mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, J. L. Farnsworth

869.  
REMARKS.

Very Rich.  
Foring Nat., Calif.

870. Frand

TEMPERATURE RECORD.

Instrument used, Negretti Zambla.

Current number of observation, 870.

Date, Sept., 4, 1880.

Locality, Atlantic.

Bearings, Lat.  $40^{\circ} 02' 36''$  N,  
Long.  $70^{\circ} 22' 58''$  W.

Time of day, 10, 50 a.m.; of tide,

State of sky, clear.

Temperature of air, 80.

" surface of water, 77 (n.z. 46400).  
" at depth of 5 fathoms, 75. (n.z. 46407).  
" of bottom, No obs.

Depth, in fathoms, 155.

Nature of bottom, sand and fine sand.

Direction of surface current, Calm

Force of surface current.

Direction of ~~bottom current~~, N. by N.  
~~Distance from bottom~~, 1 mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer, J. D. Tanner.

870.

**REMARKS.**

Female bird at 5 fm.

*Fawl*  
TEMPERATURE RECORD.

Instrument used *Negretti-Zambra*

Current number of observation *871*

Date *Sept. 4, 1880.*

Locality *Atlantic Ocean.*

Bearing *Lat.  $40^{\circ} 02' 54'' N.$ , Lat.  $70^{\circ} 23' 40'' W.$*   
*(Lat. merid. obs.  $40^{\circ} 04' 57'' N.$ )*

Time of day *11.40 A.M.*; of tide,

State of sky, *Clear.*

Temperature of air, *84*

*n<sub>3</sub>, 46401* { surface of water, *76.5* (*n<sub>3</sub>, 46400*).  
at depth of *5* fathoms, *75* (*10f. 75°*).  
" of bottom, *49*. (*n<sub>3</sub>, 46401*)

Depth, in fathoms, *115.*

Nature of bottom *Smooth & fine sand.*

Direction of surface current, *wind*, *Calm.*

Force of surface current, *drift-* "

Direction of bottom current, *drift,* "

Force of bottom current, *3/4 mile.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

*J. D. Tanner*

871  
REMARKS.

July 1st 2004.

Travel  
TEMPERATURE RECORD.

Instrument used Negretti-Zambra

Current number of observation, 872.

Date, Sept., 4, 1880.

Locality, Atlantic.

Bearings, Lat.  $40^{\circ} 05' 39'' N$

Long.  $70^{\circ} 23' 52'' W.$

Time of day, 12.45 P.M. of tide,

State of sky, Partly clear.

Temperature of air, 81.

surface of water, 77 ( $73.46400$ ).

at depth of 5 fathoms, 75. ( $73.46407$ ).

of bottom, 50.5. "

Depth, in fathoms, 86.

Nature of bottom, sand, gravel, shells, sponge, mud.

Direction of surface current, South.

Force of surface current, 1.

Direction of linear current, N. by E.

Force of bottom current,  $\frac{1}{2}$  mile.

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer, J. A. Smith.

872  
REMARKS.

Wade's fish (5<sup>th</sup> Specimen)

*Trawl.*  
TEMPERATURE RECORD.

Instrument used. Negretti-Zambra

Current number of observation, 873.

Date, Sept. 13, 1880.

Locality, Atlaſteé,

Bearings, Lat.  $40^{\circ}02'N$ .

Long.  $70^{\circ}05'W$

Time of day, 5.36 a.m.; of tide,

State of sky, clear.

Temperature of air, 68.

" surface of water, 69.5 (n.z. 46404  
n.z. 46400. at depth of 5 fathoms,  $70^{\circ}$  (10 f. 70°  
" of bottom, 51. n.z. 46400.

Depth, in fathoms, 100.

Nature of bottom, sand.

Direction of ~~surface current~~, S. W.

Force of ~~surface current~~, 3.

Direction of ~~bottom current~~, N. W. by N.

Force of bottom current,  $\frac{1}{2}$  mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

No. B-3-877 left about  
mid-way between in  
character throughout,  
and with about the  
same abundance of  
life, two of the trunks  
had but little in them  
but it was all the same.

*Frank*

TEMPERATURE RECORD.

Instrument used. Negretti Zambra

Current number of observation. 874.

Date, Sept. 13, 1882.

Locality, Atlantic

Bearings, Lat.  $40^{\circ}$  N.

Long.  $70^{\circ} 57' W.$

Time of day, 6. 26 a.m.; of tide,

State of sky, clear

Temperature of air,  $70^{\circ}$

surface of water,  $70$  ( $n. 3.46404$ .

at depth of 5 fathoms,  $70.5^{\circ}$  ( $108.70^{\circ}$ ) X  
of bottom, 51. ( $n. 3.46400$ )

Depth, in fathoms, 85.

Nature of bottom, mud.

Direction of surface current, S. W.

Force of surface current, 2.

Direction of drift, N. W.

drift, "  $\frac{1}{2}$  mile.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

$287.64^{\circ} - 447.55^{\circ}$

REMARKS.

*T. Paul*  
TEMPERATURE RECORD.

Instrument used, *Regrett's Zambra*  
*875.*

Current number of observation,

Date, Sept. 13, 1850.

Locality, *Atlantic*

Bearings, *Lat. 39° 57' N.*

*Long. 70° 57' 20" W.*

Time of day, 7.51 a.m.; of tide,

State of sky, *clear.*

Temperature of air, *70.*

*n<sub>3</sub>,* " surface of water, *70.* *n. 3. 46404.*  
*46400.* " at depth of 5 fathoms, *71° (10f. 70" X*  
" of bottom, *53.* *n 3. 46400.*

Depth, in fathoms, *126.*

Nature of bottom, *sand.*

Direction of wind, *S. W.*

Force of surface current, *2.*

Direction of bottom current, *N. E.*

Ridge, " *1/2 mile*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

*20f. 69° - 30f. 54°*

REMARKS.

Travel  
TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 876.

Date, Sept. 10, 1880.

Locality, Atlantic.

Bearings, Lat.  $39^{\circ} 57' N.$

Long.  $70^{\circ} 56' W.$

Time of day, 8.45 a.m.; of tide,

State of sky, clear.

Temperature of air, 68

" surface of water, 70. (n.B. 46404  
 $n_3$ , 46400. at depth of 5 fathoms, 71. (10f.  $70^{\circ} X$   
" of bottom, 58. n.B. 46400.

Depth, in fathoms, 120.

Nature of bottom, mud.

Direction of surface current, S. W.

Force of surface current, 2.

Direction of bottom current, N.

Force of bottom current, 2 1/4 miles.

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

\* 2 of.  $69^{\circ} - 30f. 54^{\circ}$ .

## **REMARKS.**

*Tracey*  
TEMPERATURE RECORD.

Instrument used, *Regretei Zambla.*

Current number of observation, 877.

Date, Sept. 13, 1880.

Locality, *Atlantic.*

Latitude, Lat.  $39^{\circ} 56' N.$

Bearings, Long.  $70^{\circ} 05' 18'' W.$

Time of day, 9.40 a.m.; of tide,

State of sky, *clear.*

Temperature of air, 71.

n. 3, 46400  
" surface of water, 71. (n. 3, 46404  
46400 " at depth of 5 fathoms,  $78^{\circ}$  ( $107.70^{\circ}$ )  
" of bottom, 57. n. 3, 46400.

Depth, in fathoms, 126.

Nature of bottom, *sand.*

Direction of surface current, S. N.,

Force of surface current, 2,  
*Triff-*

Direction of bottom current, n. n. w.,  
*Dist.*

Force of bottom current,  $\frac{3}{4}$  m.

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

**REMARKS.**

*Trawl*  
TEMPERATURE RECORD.

Instrument used. Negretti-Zambra and  
Miller-Caetela.

Current number of observation. 878.

Date. Sept., 13, 1880.

Locality, *Atlan*tic.

Bearings. Lat.  $39^{\circ} 55' N.$ ,

Long.  $70^{\circ} 54' 15'' W.$

Time of day, 11 a.m.; of tide,

State of sky, cloudy.

Temperature of air, 72.

" surface of water. 71. (n.s. 46404,

" at depth of 5 fathoms <sup>n.s. 70</sup> m.c. 66.  $\frac{1}{2}$  10° n.s. 70, X

" of bottom, 52. n.s. 46400,

Depth, in fathoms, 142 <sub>1/2</sub> m.c.

Nature of bottom, mud.

Direction of surface current, S. W.

Force of surface current, 2

Direction of rip current E. N. W.

Force of bottom current,  $\frac{3}{4}$  m.

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

X  
 $\frac{1}{2}$  of n.s. 55.  
of m.c. 55

**REMARKS.**

Trawl  
TEMPERATURE RECORD.

Instrument used,

Negretti Zambra and  
Miller Casella

Current number of observation, 879,

Date, Sept. 13, 1880.

Locality, Atlantic.

Bearings, Lat.  $39^{\circ} 04' 9''$  N,  
Long.  $70^{\circ} 05' 4''$  W.

Time of day, 1.20 P.M.; of tide,

State of sky, Cloudy.

Temperature of air, 73.

" surface of water, 71.5. N. 3. 46 404.  
" at depth of 5 fathoms, 71.5. F. 1. 51 0 N. 3. 71. X  
N. 3. 46 400 of bottom, N. 3. 42. M. C. 68 } 10 N. 3. 70  
M. C. 42

Depth, in fathoms, 225

Nature of bottom, sand & blue mud.

Direction of wind, S. W.

Force of surface current, 3.

Direction of bottom current, N. by N.,

Force of bottom current,  $\frac{3}{4}$  m.

Name of vessel.

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

\* 20 f. N. 3. 70.  
m. c. 70.

879.

REMARKS.

Largo grande de 86 cm  
muy lejos.

Bolocina Tresline

Arrecife ~~Coralitos~~

*Trawl*  
TEMPERATURE RECORD.

Instrument used, *Nicola Casella*,  
Current number of observation, *880*.

Date, *Sept. 13, 1880.*

Locality, *Atlantic*

Bearings, *Lat.  $39^{\circ} 48' 3'' N.$*   
*Long.  $70^{\circ} 54' W.$*

Time of day, *3.12 P.M.*; of tide,

State of sky, *Cloudy.*

Temperature of air, *74.*

" surface of water, *71.5* (*M. 46.402*)

" at depth of *5* fathoms, *74* (*M. 46.310*)

" of bottom, *43.43* (*M. 41.5*) (*M. 46.402*)

Depth, in fathoms, *252 1/2*

Nature of bottom, *Gravel*

Direction of surface current, *S. W.*

Force of surface current, *3.*

Direction of bottom current, *W. by N.*

Force of bottom current, *3/4 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

580.

**REMARKS.**

very Rich, Large quantities  
of *Camella*, and very  
mountainous.

*Bolocera* Tree鼎.  
*Abutilon* (very large,  
no reddish spots).

*Toronto*  
TEMPERATURE RECORD.

Instrument used *Negretti Zambra*  
*Stiller's* *Consett*

Current number of observation *887*

Date, *Sept. 13. 1880.*

Locality, *Atlantic*

Bearings. Lat  $39^{\circ} 46' 30'' N$   
Long  $70^{\circ} 54' 37'' W.$

Time of day, *5 P.M.*; of tide,

State of sky, *Cloudy*

Temperature of air, *70.*

" surface of water, *71 (72.3, 46 & 04)*

" at depth of 5 fathoms, *71.5* 1 of. *71.5*

" of bottom, *71.5, 42*  
*71.5, 41.*

Depth, in fathoms, *32.87*

Nature of bottom,

Direction of *surface current*, *S. by E.*

Force of *surface current*, *3*

Direction of *bottom current*, *N. N. W.*

Force of *bottom current*, *1/2 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

887.

REMARKS.

Foul fouled, and but little  
came up;  
Acanella,  
Archaster? Sh.  
redded octopus?  
Metacrinus medusa?

Very rich bottom  
apparently.

*Israel*  
TEMPERATURE RECORD.

Instrument used. ~~88~~ Negretti Zambra

Current number of observation, 882

Date, Sept. 17, 1850,

Locality, Nanayaniell Bay

Bearings, Halfway Rock N. N. E.  $\frac{1}{2}$  E.  
2 3/8 miles.

Time of day, 10:56 <sup>A.M.</sup>; of tide,

State of sky, <sup>Fair</sup> Clear.

Temperature of air, 68.

" surface of water, 65° (Hz. 46402)

" at depth of fathoms,

" of bottom, 67. (Hz. 46402)

Depth, in fathoms, 12 1/2

Nature of bottom, mud.

Direction of surface current, wind S. W.

Force of surface current, " 2.

Direction of bottom current, drift S. W.

Force of bottom current, " 1/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

*Sycophant canaliculatus*  
*Asterolas Forbesii*  
*Eupogonius pollicaris*  
*Metridium marginatum*  
*Solea Realei (pug.)*  
*Silurus marginatus (pug.)*  
*Cyprinus Islandicus (dead)*  
*Colusca convexa* " "  
*Cribrella sanguinolenta (pug.)*

Trawl

TEMPERATURE RECORD.

Instrument used, Negretti-Zambra

Current number of observation, 883.

Date, Sept. 17.

Locality, Narragansett Bay.

Bearings, Halfway Rock N.E. by  
N.,  $2\frac{1}{4}$  miles.

Time of day, 11, 35<sup>min</sup>; of tide,

State of sky, Clear.

Temperature of air, 70

surface of water, 65 (N.z, 46452)

at depth of fathoms,

" of bottom, 63 $\frac{1}{2}$  (N.z, 46400)

Depth, in fathoms, 13.

Nature of bottom, mud.

Direction of surface current, wind S.W.

Force of surface current, " 2.

Direction of bottom current, S.W.

Force of bottom current, 12 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

883

REMARKS.

About same things as 882  
Horned American  
Gull  
Long Billed  
Lapwing longicrus.

# Chesta Lake dredge

## TEMPERATURE RECORD.

Instrument used, Negretti Zambra

Current number of observation, 884

Date, Sept. 17, 1850

Locality, Narragansett Bay

Bearings, Hope J., N. E. 12° E.

20° 3' az. 33.

Time of day, 2.10 P.M.; of tide,

State of sky, Clear.

Temperature of air, 72

" surface of water, 65, (N.z. 46402

" at depth of fathoms,

" of bottom, 63.5 (N.z. 46400

Depth, in fathoms, 5.

Nature of bottom, mud

Direction of surface current, wind, S. W.

Force of surface current, " 3.

Direction of bottom-current, drift S. W.

Force of bottom-current, " 1/4 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## **REMARKS.**

Officer Trained  
TEMPERATURE RECORD.

Instrument used,

Nephrite Zembla

Current number of observation,

885

Date, Sept. 17, 1880.

Locality, Nariaganasett Bay.

Bearings, Gould's I., N. by E.  $3\frac{1}{4}$  E.  
 $\frac{3}{8}$  mile

Time of day, 3, 15 P.M.; of tide,

State of sky, Clear.

Temperature of air, 71. ( $n_3$ , 46402)

" surface of water, 69.

" at depth of 5 fathoms, 64 ( $n_3$ , 46400)

" of bottom, 65 "

Depth, in fathoms, 16

Nature of bottom, mud & shells.

Direction of surface-current, wind S.W.

Force of surface-current, " 2.

Direction of bottom-current, drift S.

Force of bottom-current, " 1/4 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## **REMARKS.**

*Dredge*

TEMPERATURE RECORD.

Instrument used,

*Régnier Gauß*

Current number of observation, 88

Date, Sept. 21,

Locality, off Block I

Bearings, South of Block I. N. 3/4 W.  
5 3/4 miles.

Time of day, 12, 49 P.M. of tide.

State of sky, clear.

Temperature of air, 67

" surface of water, 64 (10.3, 46.402

" at depth of 5 fathoms, 62 (11.3, 46.400

" of bottom, 62, " "

Depth, in fathoms, 19.

Nature of bottom, Shells.

Direction of surface current, wind West

Force of surface current, " 2

Direction of bottom current, drift N.

Force of bottom current, " 1/4 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

886, Bridge

**REMARKS.**

Very poor, hard land.  
~~Shrubbed~~  
*Urtica dioica*  
Covered Sph. grass.

*Travel.*

TEMPERATURE RECORD.

Instrument used, *Negretti Zambra*

Current number of observation, *887.*

Date, *Sept. 21.*

Locality, *Off Block I.*

Bearings, *South East, Block I. N. 1/2 W.  
5 3/4 miles*

Time of day, *1.30 P.M.*; of tide,

State of sky, *Clear*

Temperature of air, *67.*

" surface of water, *64* (*N.Z. 46402*)

" at depth of *5* fathoms, *62* (*N.Z. 46402*)

" of bottom, *62* "

Depth, in fathoms, *19.*

Nature of bottom, *Shall.*

Direction of surface current, *airia N.*

Force of surface current, " *2*

Direction of bottom current, *Briff - N.*

Force of bottom current, " *3 p.m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

887 ~~Small~~

REMARKS.

like former.  
*Echinariaechinii*. *Parva*.  
*Asterias vulgaris*.  
*Pecten tenuicostatus*.  
*Phacelidium clementini*  
*Astarte*  
*Venericardia cornuta*.

*Frank.*  
TEMPERATURE RECORD.

Instrument used, *Negretti Zambra*

Current number of observation, 888.

Date, Sept. 21, 1880,

Locality, off Block I.

Bearings, South west Block I,  
N. by E., 6 miles.

Time of day, 2 P.M.; of tide,

State of sky, clear.

Temperature of air, 68

" surface of water, 64 (N.Z. 46402)

" at depth of 5 fathoms, 62 (N.Z. 46402)

" of bottom, 62 "

Depth, in fathoms, 19.

Nature of bottom, shells.

Direction of surface current, wind. N.

Force of surface current, 11 3.

Direction of bottom current, drift N.

Force of bottom current, " 1 1/2 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

888. *Troch.*

**REMARKS.**

Same as last very poor

*Dredge*  
TEMPERATURE RECORD.

Instrument used, Negrette Brumba

Current number of observation, 889.

Date, Sept. 21.

Locality, off Block I.

Bearings, South Light Block I,  
N. 1/4 S. 5 miles,

Time of day, 3.50 P.M.; of tide,

State of sky, clear.

Temperature of air, 68

" surface of water, 64 ( $72^{\circ}46'40.2''$ )

" at depth of 5 fathoms, 62 ( $72^{\circ}46'50.0''$ )

" of bottom, 61.5 "

Depth, in fathoms, 11.

Nature of bottom, Rocky.

Direction of surface current, live N.

Force of surface current, " 3.

Direction of bottom current, drift N. S. W.

Force of bottom current, "  $1\frac{1}{2}$  m

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

Land sand some rocks.

Dredge

TEMPERATURE RECORD.

Instrument used,

Negratte Jaubron

Current number of observation, 890.

Date, Sept. 21, 1860.

Locality, Off Block I.

Bearings, South East Block I.  
W. 14 S.  $4\frac{3}{4}$  miles.

Time of day, H. 15 P.M. of tide,

State of sky, Clear.

Temperature of air, 68.

" surface of water, 64. (N<sub>Z</sub>, 46402)

" at depth of 5 fathoms, 62 (N<sub>Z</sub>, 46402)

" of bottom, 61.5 (N<sub>Z</sub>, 46400)

Depth, in fathoms, 11

\* Nature of bottom, Rocky.

Direction of surface current, Wind N.

Force of surface current, " 3

Direction of bottom-current, Wind N., S., W.

Force of bottom current, " 1/2 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

had some rocks

*Trawl*  
TEMPERATURE RECORD.

Instrument used,

*Refracte Barometer*

Current number of observation,

891.

Date, Oct. 2, 1880.

Locality, Atlantic

Bearings, Lat,  $39^{\circ} 46' N$   
Long,  $71^{\circ} 10' W$

Time of day, 6 a.m.; of tide,

State of sky, Clear

Temperature of air, 60

" surface of water, 67

" at depth of fathoms,

" of bottom,

Depth, in fathoms. Soundings line broke at 310 +.

Nature of bottom, mud.

Direction of surface-current, wind N.E.

Force of surface-current, " 3.

Direction of bottom-current, drift - N.

Force of bottom-current, "  $\frac{1}{2}$  m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

891.

REMARKS.

Soft brown mud.

Not much variety, but  
abundance of brown shells etc.,  
Foraminifera. 3 species copepod.

The sounding for no 892  
was 480 fathoms and  
this is probably the depth  
of this one also.

Long by observation  
Lat. by do (new)

Trawl  
TEMPERATURE RECORD.

Instrument used, Negretti & Zambra

Current number of observation, 892

Date, Oct 2 1880

Locality, Atlanta,

Bearings, Lat.  $39^{\circ} 46' N$

Long.  $71^{\circ} 05' W.$

Time of day, 8.46 a.m.; of tide,

State of sky, Clear,

Temperature of air, 64.

" surface of water, 65.

" at depth of fathoms,

" of bottom. Lost lead when at surface

Depth, in fathoms, 487.

Nature of bottom,

Direction of surface current, Wind N.E.,

Force of surface current, " 3,

Direction of bottom current, Drift N.N.E.,

Force of bottom current, " 2 miles,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

892

REMARKS.

Large boulders  
Some small stones.

Fawcett  
TEMPERATURE RECORD.

Instrument used,

Negretti Zambra

Current number of observation,

893

Date, Oct. 2., 1850,

Locality, Atlantic

Bearings, Lat.  $39^{\circ} 52' 20'' N$   
Long.  $70^{\circ} 58' W.$

Time of day, 11, 23 a.m. of tide,

State of sky, Clear

Temperature of air, 63

" surface of water, 64

" at depth of fathoms,

" of bottom, 40. m.c.

Depth, in fathoms, 372

Nature of bottom, Mud.

Direction of surface current, Wind N.E.

Force of surface current, " 3

Direction of bottom current, Drift - N.

Force of bottom current, " 1 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

893.

REMARKS.

Mud & small stones

Very Rich,

Acanthia.

Horn tubes.

Ostrof.

" Webbed.

Archaeoli?

Time of descent of lead  
in sounding every one-  
half fathom. seconds  
46, 46, 50, 53, 52, 55,  
time hauling 8' 15"

*Fowl*  
TEMPERATURE RECORD.

Instrument used,

*Keller Cavello*

Current number of observation,

*894*

Date, *Oct. 2, 1880*

Locality, *Atlanta*,

Bearings, *Lat.  $39^{\circ}53' N$*

*Long.  $70^{\circ}58' 30'' W.$*

Time of day, *1.10 P.M.*; of tide,

State of sky, *Clear*

Temperature of air, *63.*

" surface of water, *64.*

" at depth of      fathoms,

" of bottom, *40.*      M.C.,

Depth, in fathoms, *36.5.*

Nature of bottom, *Sand*

Direction of surface current, *Wind N.E.*

Force of surface current, " *3*

Direction of bottom current, *Grift N.*

Force of bottom current, *2 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

*Long. by observation*

## REMARKS.

Mud and sand along  
beach Rich

Frac  
TEMPERATURE RECORD.

Instrument used.

Miller Caselli

Current number of observation,

894

Date, Oct. 2, 1880

Locality, Atlantic

Bearings, Lat.  $39^{\circ} 56' 30''$  N  
Long.  $70^{\circ} 59' 45''$  W

Time of day, 3.17 P.M.; of tide,

State of sky, Clear

Temperature of air, 62

" surface of water, 65

" at depth of fathoms,

" of bottom, 42 N.E.,

Depth, in fathoms, 235

Nature of bottom, mud

Direction of surface current, wind N.W.

Force of surface current, "

Direction of bottom current, drift N.

Force of bottom current, 1 1/2 m.

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Long. by observation

## REMARKS.

soft mud, about 2 tons,  
multitudes of Fulgulites  
Goodee, broken into  
various pieces.  
Worn tubas.  
Sea Anemones, etc  
Very Rich.

*Travel*  
TEMPERATURE RECORD.

Instrument used,

Current number of observation, 896.

Date, Nov. 16. 1880.

Locality,

Bearings, Lat.  $37^{\circ} 26' N.$   
long.  $74^{\circ} 19' W.$  (19')

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 56.

Nature of bottom, sand, shells.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## **REMARKS.**

*Frank*  
TEMPERATURE RECORD.

Instrument used.

Current number of observation.

897.

Date, Nov. 16, 1880.

Locality,

Bearings, Lat.  $37^{\circ} 25' N$   
Long.  $74^{\circ} 18' W.$

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 157 $\frac{1}{2}$

Nature of bottom, sand, mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## **REMARKS.**

*Frank*  
TEMPERATURE RECORD.

Instrument used,

Current number of observation,

898.

Date, Nov. 16, 1880.

Locality,

Bearings, Lat.  $37^{\circ} 24' N.$   
Long.  $24^{\circ} 17' W.$

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

300 (approx.)

Nature of bottom,

Mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

*Frank*  
TEMPERATURE RECORD.

Instrument used,

Current number of observation, 899.

Date, Nov. 16, 1880,

Locality,

Bearings, Lat.  $37^{\circ}22' N$   
Long.  $74^{\circ}29' W.$

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water.

" at depth of fathoms,

" of bottom,

Depth, in fathoms,  $57 \frac{1}{2}$

Nature of bottom, Sand.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

## REMARKS.

*Trawl*  
TEMPERATURE RECORD.

Instrument used,

Current number of observation, 900.

Date, Nov. 16, 1880.

Locality,

Bearings, Lat.  $37^{\circ}19' N$   
Long.  $74^{\circ}41' W.$

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 31.

Nature of bottom, Sand

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

**REMARKS.**

*Trawl.*  
TEMPERATURE RECORD.

Instrument used,

Current number of observation, 901.

Date, Nov. 16, 1880.

Locality,

Bearings, Lat.  $37^{\circ} 10' N$   
long  $75^{\circ} 08' W$ .

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 18,

Nature of bottom, sand.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

**REMARKS.**